



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/524,795

05/26/2005

Alta Spamer

000004.P001

8709

52418 7590 11/17/2008
HAHN AND MOODLEY, LLP
P.O. BOX 52050
MINNEAPOLIS, MN 55402

EXAMINER

BULLOCK, IN SUK C

ART UNIT

PAPER NUMBER

1797

MAIL DATE

DELIVERY MODE

11/17/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/524,795	Applicant(s) SPAMER ET AL.	
	Examiner In Suk Bullock	Art Unit 1797	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 July 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 26-50 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 26-50 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

Receipt of replacement pages for the specification and amendment to claims 27-34 are hereby acknowledged.

No claim has been canceled and no new claim has been added. Thus, claims 26-50 remain pending in this application.

Upon reconsideration of the previously applied reference EP 0 434 123 to Hamilton et al., the following is a new ground(s) of rejection.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 26, 28, 30, 35, 37, and 39 are rejected under 35 U.S.C. 102(b) as being anticipated by EP 0 434 123 to Hamilton et al. (hereinafter "Hamilton").

Hamilton discloses a method of preparing a metathesis catalyst comprising mixing tungsten or a molybdenum oxide anion containing aqueous solution with an alumina support at a pH between 4-10, followed by drying and calcining at a temperature range of 300 to 900° C (page 3, lines 5-12). Drying is accomplished by conventional means including forced draft drying and vacuum drying. Drying temperatures will typically range from about 50° C to about 150° C. See page 6, lines 1-

Art Unit: 1797

4. The tungsten solution typically consists of ammonium metatungstate dissolved in water (page 5, lines 14-18). The catalyst is contacted with olefinic hydrocarbons having C₂ to about C₁₀₀ carbon atoms at a temperature from about 10 to about 350° C, pressure in the range of 50 to about 500 psig, and WHSV in the range of about 0.1 to about 10.0 hr⁻¹ (page 3, lines 25-29; page 6, lines 42-49; and page 7, lines 5-10).

It is acknowledged that the claim recites “a pH of 9 or higher” whereas Hamilton discloses a pH range of 4-10. It has been held, “When, as by a recitation of ranges or otherwise, a claim covers several compositions, the claim is 'anticipated' if one of them is in the prior art.” *Titanium Metals Corp. v. Banner*, 778 F.2d 775, 227 USSQ 773 (Fed. Cir. 1985).

It is acknowledged Hamilton does not explicitly disclose wherein most of the tungsten oxide deposits are substantially amorphous. However, since the process of making the catalyst is the same as claimed, it is expected that the catalyst of Hamilton would inherently have the same property as claimed.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 27, 29, 31-34, 36, 38, and 40-50 are rejected under 35 U.S.C. 103(a) as being unpatentable over EP 0 434 123 to Hamilton et al. (hereinafter "Hamilton") in view of U.S. Patent 4,522,936 to Kukes et al. (hereinafter "Kukes").

Hamilton discloses a method of preparing a metathesis catalyst comprising mixing a tungsten or a molybdenum oxide anion containing aqueous solution with an alumina support at a pH between 4-10, followed by drying and calcining at a temperature range of 300 to 900° C (page 3, lines 5-12). Drying is accomplished by conventional means including forced draft drying and vacuum drying. Drying

Art Unit: 1797

temperatures will typically range from about 50° C to about 150° C. See page 6, lines 1-4. The tungsten solution typically consists of ammonium metatungstate dissolved in water (page 5, lines 14-18). The final catalyst contains from about 8 to about 32 wt% tungsten (page 4, lines 53-58). The catalyst is contacted with olefinic hydrocarbons having C₂ to about C₁₀₀ carbon atoms at a temperature from about 10 to about 350° C, pressure in the range of 50 to about 500 psig, and WHSV in the range of about 0.1 to about 10.0 hr⁻¹ (page 3, lines 25-29; page 6, lines 42-49; and page 7, lines 5-10).

Hamilton fails to disclose silica carrier.

Kukes discloses tungsten oxide-silica is a commercially available catalyst developed specifically for metathesis (col. 3, lines 67-68). The catalyst is best suited for metathesis in the 300 to 500° C temperature range. The reference also discloses that metathesis catalysts include both homogeneous and heterogeneous catalysts with the heterogeneous catalyst appearing to have the greatest utility (col. 3, lines 32-38). Alumina and silica are the best known supports and are preferred because of high catalytic activity, stability, and availability (col. 5, lines 22-26).

As shown by Kukes, silica and alumina are equivalent supports. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have substituted the alumina support in the EP reference for the silica support taught by Kukes. Substitution of equivalents requires no express motivation. In re Fount, 213 USPQ 532 (CCPA 1982); In re Siebentritt, 152 USPQ (CCPA 1967).

With regard to the specifics of calcination as recited in claims 31-34, it would have been obvious to one skilled in the art to use any effective method of calcining the

Art Unit: 1797

final catalyst including the claimed method of gradually increasing the calcination temperature and holding at a predetermined temperature for a predetermined amount of time.

With regard to the characteristics of the catalyst as recited in claims 41, 43, and 44, the catalyst disclosed in Hamilton would inherently have the same claimed characteristics since Hamilton discloses the same composition and same method of producing the catalyst.

With regard to the metathesis process conditions, i.e., temperature, pressure, and LHSV, it is noted that Hamilton discloses process conditions which overlap with the claimed process conditions. In the case where the claimed ranges "overlap or lie inside ranges disclosed by the prior art" a prima facie case of obviousness exists. *In re Wertheim*, 541 F.2d 257, 191 USPQ 90 (CCPA 1976); *In re Woodruff*, 919 F.2d 1575, 16 USPQ2d 1934 (Fed. Cir. 1990).

Response to Arguments

Applicant's arguments with respect to claims 26-50 have been considered but are moot in view of the new ground(s) of rejection.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to In Suk Bullock whose telephone number is 571-272-5954. The examiner can normally be reached on Monday - Friday 6:00-2:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenn Caldarola can be reached on 571-272-1444. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/In Suk Bullock/
Examiner, Art Unit 1797